

We claim:

1. A floating conductor pad for a wireless communication device comprising an antenna and device components in an operating environment of the antenna, the floating conductor pad comprising a patch of conductive material configured to be positioned adjacent the antenna to
5 couple to the antenna, whereby the floating conductor pad has a dominant effect on the antenna in the operating environment.
2. The floating conductor pad of claim 1, wherein the patch of conductive material has a rectangular shape.
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3. The floating conductor pad of claim 1, wherein the conductive material is selected from the group consisting of: copper and silver.
4. The floating conductor pad of claim 1, wherein the floating conductor pad is positioned
15 on a single dielectric substrate with the antenna.
5. The floating conductor pad of claim 1, wherein the device components comprise a printed circuit board, and wherein the floating conductor pad is mounted on the printed circuit board.
- 20 6. The floating conductor pad of claim 1, wherein the device components comprise a plurality of printed circuit boards, and wherein the floating conductor pad is configured to be mounted on one of the plurality of printed circuit boards.

7. The floating conductor pad of claim 6, wherein the one of the plurality of printed circuit boards carries components of a keyboard of the wireless communication device.

8. The floating conductor pad of claim 7, wherein dimensions and orientation of the floating conductor pad are selected so as to cancel noise generated by operation of the keyboard.

9. The floating conductor pad of claim 1, wherein floating conductor pad masks the antenna from effects of variations in the device components.

10. An antenna for a wireless communication device having a plurality of device components, comprising:

an antenna element; and

a floating conductor pad positioned adjacent the antenna element and configured to couple to the antenna element, to thereby reduce effects of variations in the device components on the antenna.

11. The antenna of claim 10, wherein the antenna element comprises a first conductor section and a second conductor section, and wherein the floating conductor pad comprises a conductive patch adjacent one of the first conductor section and the second conductor section.

12. The antenna of claim 10, wherein the antenna element is configured to operate in a first operating frequency band, further comprising:

a second antenna element positioned adjacent the antenna element and the floating conductor pad and having a second operating frequency band.

13. The antenna of claim 12, further comprising:

5 a substrate,
wherein the antenna element and the second antenna element are located on the substrate.

14. The antenna of claim 13, wherein the floating conductor pad is located on the substrate.

10 15. The antenna of claim 13, wherein the device components comprise a printed circuit board, and wherein the floating conductor pad is mounted on the printed circuit board.

16. The antenna of claim 15, wherein the floating conductor pad comprises a conductive patch on the printed circuit board.

15 17. The antenna of claim 14, wherein the substrate is folded to mount the antenna to a plurality of inside surfaces of the wireless communication device.

18. The antenna of claim 12, wherein the first operating frequency band includes both an
20 1800MHz communication frequency band and a 1900MHz communication frequency band, and wherein the second operating frequency band comprises a 900MHz communication frequency band.

19. A wireless mobile communication device comprising:
a transceiver incorporating transceiver components;
an antenna connected to the transceiver; and
a floating conductor pad positioned adjacent the antenna and configured to couple to the
5 antenna to reduce effects of variations in the transceiver components on the antenna.

20. The wireless mobile communication device of claim 19, further comprising:
a printed circuit board,
wherein the floating conductor pad is mounted on the printed circuit board.

21. The wireless mobile communication device of claim 20, wherein the floating conductor
pad comprises a conductive material deposited on the printed circuit board.

22. The wireless mobile communication device of claim 19, further comprising:
15 a first printed circuit board; and
a second printed circuit board,
wherein the floating conductor pad is positioned between the first printed circuit board
and the second printed circuit board.

23. The wireless mobile communication device of claim 22, wherein the first printed circuit
board carries the transceiver components, and wherein the second printed circuit board carries
components of a keyboard of the wireless mobile communication device.

24. The wireless mobile communication device of claim 19, wherein the wireless mobile communication device is selected from the group consisting of: a data communication device, a voice communication device, a dual-mode communication device, a mobile telephone having data communications functionality, a personal digital assistant (PDA) enabled for wireless
5 communications, a wireless email communication device, and a wireless modem.